

SEQUENCE LISTING

<110> RIEBEL, Bettina

HUMMEL, Werner

BOMMARIUS, Andreas

<120> RECOMBINANT ENZYMES HAVING IMPROVED NAD(H) ACCEPTANCE

<130> 210212US

<150> DE 10037101.9

<151> 2000-07-27

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<170> PatentIn version 3.1

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<212> DNA

<213> Lactobacillus brevis

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Leu Gly Ile Gly Leu Ala Ile Ala Thr Lys Phe Val Glu Glu Gly Ala	
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aag gtc atg att acc gac cgg cac agc gat gtt ggt gaa aaa gca gct	144
Lys Val Met Ile Thr Asp Arg His Ser Asp Val Gly Glu Lys Ala Ala	
35 40 45	
aag agt gtc ggc act cct gat cag att caa ttt ttc caa cat gat tct	192
Lys Ser Val Gly Thr Pro Asp Gln Ile Gln Phe Phe Gln His Asp Ser	
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tcc gat gaa gac ggc tgg acg aaa tta ttc gat gca acg gaa aaa gcc	240
Ser Asp Glu Asp Gly Trp Thr Lys Leu Phe Asp Ala Thr Glu Lys Ala	
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Phe Gly Pro Val Ser Thr Leu Val Asn Asn Ala Gly Ile Ala Val Asn	
85 90 95	
aag agt gtc gaa gaa acc acg act gct gaa tgg cgt aaa tta tta gcc	336
Lys Ser Val Glu Glu Thr Thr Thr Ala Glu Trp Arg Lys Leu Leu Ala	
100 105 110	
gtc aac ctt gat ggt gtc ttc ttc ggt acc cga tta ggg att caa cgg	384
Val Asn Leu Asp Gly Val Phe Phe Gly Thr Arg Leu Gly Ile Gln Arg	
115 120 125	
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Met Lys Asn Lys Gly Leu Gly Ala Ser Ile Ile Asn Met Ser Ser Ile	
130 135 140	
gaa ggc ttt gtg ggt gat cct agc tta ggg gct tac aac gca tct aaa	480
Glu Gly Phe Val Gly Asp Pro Ser Leu Gly Ala Tyr Asn Ala Ser Lys	
145 150 155 160	
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Gly Ala Val Arg Ile Met Ser Lys Ser Ala Ala Leu Asp Cys Ala Leu	
165 170 175	
aag gac tac gat gtt cgg gta aac act gtt cac cct ggc tac atc aag	576
Lys Asp Tyr Asp Val Arg Val Asn Thr Val His Pro Gly Tyr Ile Lys	
180 185 190	
aca cca ttg gtt gat gac cta cca ggg gcc gaa gaa gcg atg tca caa	624
Thr Pro Leu Val Asp Asp Leu Pro Gly Ala Glu Glu Ala Met Ser Gln	

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cgg acc aag acg cca atg ggc cat atc ggt gaa cct aac gat att gcc 672
 Arg Thr Lys Thr Pro Met Gly His Ile Gly Glu Pro Asn Asp Ile Ala
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<213> Lactobacillus brevis

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Lys Ser Val Gly Thr Pro Asp Gln Ile Gln Phe Phe Gln His Asp Ser
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Ser Asp Glu Asp Gly Trp Thr Lys Leu Phe Asp Ala Thr Glu Lys Ala
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Phe Gly Pro Val Ser Thr Leu Val Asn Asn Ala Gly Ile Ala Val Asn
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Lys Ser Val Glu Glu Thr Thr Thr Ala Glu Trp Arg Lys Leu Leu Ala

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105

110

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Glu Gly Phe Val Gly Asp Pro Ser Leu Gly Ala Tyr Asn Ala Ser Lys
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Gly Ala Val Arg Ile Met Ser Lys Ser Ala Ala Leu Asp Cys Ala Leu
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Lys Asp Tyr Asp Val Arg Val Asn Thr Val His Pro Gly Tyr Ile Lys
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Thr Pro Leu Val Asp Asp Leu Pro Gly Ala Glu Glu Ala Met Ser Gln
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Arg Thr Lys Thr Pro Met Gly His Ile Gly Glu Pro Asn Asp Ile Ala
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